

FOLIO

THE UNIVERSITY OF ALBERTA STAFF BULLETIN

EDMONTON 7, ALBERTA

SEPTEMBER 11, 1969



Mr. Holmes

RESEARCH GRANTS OFFICER NAMED

GORDON A. HOLMES has been appointed Research Grants Officer for The University of Alberta. He will be in charge of the Research Grants and Contracts Office which opened September 2 in Room 321, University Hall. Mr. Holmes will be directly responsible to the Dean of Graduate Studies. He will process all applications for research grants and contracts and will be pleased to discuss such applications and deal with any problems that may arise in connection with them. He thus takes over many of the responsibilities for research grant applications dealt with by the Dean of Graduate Studies since July, 1967. The Dean will, however, still be the official signing agent for the University. Mr. Holmes has been appointed a member of the Council of the Faculty of Graduate Studies.

Mr. Holmes comes to the University well qualified for this position. He has just completed five years as Research Grants Officer at McGill University. He is therefore well acquainted with granting bodies and has established valuable personal contacts with them. His experience will be most valuable to this University.

Mr. Holmes holds Bachelor of Commerce and Master of Business Administration degrees from McGill. Previous to his McGill appointment, he was Chief Accountant with the Prudential Assurance Company, Limited in Montreal for 11 years. Prior to that, he was Assistant Secretary-Treasurer to the town of Hampstead, Quebec, and industrial accountant with Canadian Industries, Limited in Montreal. He has lectured in Commerce

in the Evening Division at Sir George Williams University for eight years.

Mr. Holmes is married and has three children.

ASSOCIATE DEAN APPOINTED

ERNEST D. HODGSON, Professor of Educational Administration, has been named Acting Associate Dean of Graduate Studies, replacing HENRY KREISEL, who has been named Acting Dean of Graduate Studies.

Dr. Hodgson was born in Alberta in 1923. He received his Bachelor of Education in 1941, his Master of Education in 1949, and his Doctor of Philosophy in 1964, all from The University of Alberta. From 1949 to 1954, he taught school in Edmonton; in 1954-55, he was Superintendent for the Alberta Department of Education in the Strawberry School Division; from 1955-57 he served as Superintendent in the Grande Prairie School Division. After serving as high school inspector in 1957-58 and from 1960 to 1964, Dr. Hodgson was Director of School Administration with the Department of Education. He joined the staff of The University of Alberta as Professor of Educational Administration in 1966.

TENDERS REJECTED FOR ELEVEN FARM BUILDINGS

Tenders for the construction of several off campus facilities were received recently, and rejected as too high.

The facilities involved are five structures for the Faculty of Agriculture (at the Ellerslie and University Farms), five for Laboratory Animal Services (at the Ellerslie Farm), and one for the Department of Genetics (at the Ellerslie Farm).

Because all the bids were so high, it will be necessary to make program changes and redesign the facilities to bring them within the target cost. They will be re-tendered at a future date.

All five tenders received exceeded target costs by 19 to 39 per cent—too wide a margin to justify awarding the contract, according to W. H. WORTH, Vice-President, Campus Planning and Development.

UNIVERSITY OMBUDSMAN TO BE CONSIDERED

At its meeting on August 22, 1969, the Board of Governors agreed to invite those interested to consider and make recommendations to the Board through General Faculty Council on the establishment of a University ombudsman.

While ombudsman is defined usually as a commissioner appointed by a legislature to hear and investigate complaints by private citizens against government officials or agencies, it is suggested that the office, if established, should hear and investigate complaints in a university context. That is, to hear and attempt to resolve complaints between faculty and students, between either and the administration, between students, between faculty members, and any others which may come before him. It is not envisaged that an ombudsman would have powers of decision.

The Board asks that interested groups prepare their submissions for General Faculty Council by December 31, 1969.

CAMPAIGN REACHES \$10 MILLION

The Three Alberta Universities Capital Fund has reached the \$10 million mark. Attainment of what D. J. DUFF, Campaign Director, described as the "magic milestone mark" is "important for more than money alone," in the opinion of campaign committees throughout the province and across Canada. It marks the largest amount of money ever subscribed in Alberta to a volunteer effort "for a cause which many people in the beginning felt should be totally financed by government sources."

Campaign planners and officials consider the prospects excellent for achieving the overall \$25 million goal of the five-year capital appeal. "However, the campaign will succeed only if those with outstanding assignments continue their efforts to complete their calls," Mr. Duff said.

In announcing the \$10 million figure, he also pointed out that the people of Alberta "unquestionably now have a greater understanding of the problems of increasing enrolment and the needs for expanded

space presently confronting Alberta's three universities.

"A lack of public understanding of these problems and needs was a very real concern to everyone associated with the campaign in its beginning," he said. "However, with the campaign now at the \$10 million figure, it is apparent that an increasingly large segment of the public is aware that there is a need and a place for voluntary support in financing our universities' expansion."

Amounts contributed, by region, are listed below:

National Gifts	\$5,240,000
Calgary	2,165,000
Edmonton	2,245,000
Lethbridge	250,000
Provincial Regions	120,000
Total	\$10,020,000

In Edmonton, where the campaign has raised \$2,245,000, G. R. A. RICE, Chairman of the Edmonton Committee, said, "The challenge facing Edmontonians is very clear. It is essential that canvassers complete their calls during the current phase of the campaign beginning September 2. I note that some 28,000 students will be registering for classes at the three Alberta universities this month, commanding every resource of space and facilities available. About 18,000 of these students will be entering The University of Alberta in Edmonton.

"There is a basic need for continuing recognition of demands for space and facilities so that every qualified student desiring a university education will be admitted. The 3AU campaign is based on this premise.

"A most encouraging part of the campaign to date has been the tremendous support received from alumni, professional groups, and the University family. We are sure this response will be matched by business, industry, and our individual citizens in the days ahead."

A breakdown of the Edmonton Division follows:

Corporations	\$1,514,595
Professional Groups	311,305
University Family	254,341
Special Donations	104,222
Alumni	41,858
Employee Groups	18,679
Total	\$2,245,000

PEOPLE

NEIL B. MADSEN, Professor of Biochemistry, has been elected Vice-President of the Canadian Biochemical Society. He will assume

the office for a period of one year, starting June, 1970.

At the same meeting, LAWRENCE B. SMILLIE, Professor of Biochemistry, was elected Councillor of the society.

J. JAMESON BOND, Director of the Boreal Institute and Associate Professor of Anthropology, recently attended the Mid-Canada Development Corridor Conference at Lakehead University. He represented The University of Alberta on the Convening Board of the Conference.

STUDENTS' UNION ART GALLERY OPENED

The Students' Union Gallery Committee, under the direction of MYRA DAVIES, cut its vacations short in order to prepare for the opening of the Students' Union Art Gallery on Monday, September 8.

To promote the gallery, the committee has constructed large yellow arrows which stand outside the Students' Union Building like monumental primary sculpture, pointing out the location of the Gallery within the building. The rest of the campus has been blanketed with silk-screened yellow arrows pointing to the Gallery.

The year will begin with two exhibitions. A display of drawings and paintings by Robert Sinclair, Assistant Professor of Art, is the first in a series of one-man exhibitions by Alberta artists organized by the Gallery for the 1969-70 year. Mr. Sinclair's works include a number of stylized scenic representations using acrylic stain on raw cotton. Several pencilled drawings, done while driving on a 15,000-mile trip, and a three-dimensional plywood sculpture entitled "Trip" complete this exhibit.

An exhibit of student sculpture selected from work done during the last year and a half at the University, and arranged by JEREMY MOORE, Assistant Professor of Art, is the second exhibit. The display includes kinetic and light pieces. Preparations for this exhibit have gone on 24 hours a day, as some students worked around the clock to have pieces ready.

FOOTBALL TEAM NAMED

The name is the same—the University of Alberta Golden Bears—but there are a number of significant changes in the team, which hopes to regain the Western Inter-collegiate Football Championship this season.

The most significant change is the coaching staff. CLARE DRAKE has been replaced as head coach by HARVEY SCOTT. Mr. Scott, who played with the University of Western Ontario from 1959 to 1961, also played

professionally with the Calgary Stampeders in 1962 and the British Columbia Lions in 1963. He came to Alberta from Dalhousie University, where he was head coach. His assistants, JIM DONLEVY, DON BARRY, ROY STEVENSON, DAVE SANDE, and ARNIE ENGER, have all been associated with Golden Bear teams for several years.

Mr. Scott has initiated a Junior Varsity program which will enable 32 young men to play with a club which will meet other Alberta junior league and community college teams in an exhibition schedule. The program is likely to develop into a full-fledged league in 1970.

Major changes, particularly in the offensive line and linebacking positions, have been caused by the loss of several outstanding players, three of whom are now with teams in the Canadian Football League. DAVE WRAY, a college all-star, is a starting linebacker for the British Columbia Lions. BRUCE GAINER, another linebacker, is playing with the Saskatchewan Roughriders, and RON FINCH is with the Winnipeg Blue Bombers. Despite the gaps created by the departure of these players, Coach Scott is confident. "In fact," he said, "I think we'll have an improved ball team, for we have an excellent core of players returning for another season."

Returning players include several who attended professional club training camps. LUDWIG DAUBNER, an all-star running back in the Western Intercollegiate Conference last season, was one of the last Canadians to be released by the Edmonton Eskimos. Running back HART CANTELON attended the Saskatchewan Roughriders camp.

Two quarterbacks—TERRY LAMPERT and DAN MCCAFFERY, running and defensive back DAVE KATES, and offensive end MEL SMITH will be back. There is also an excellent nucleus of players from clubs in the Alberta Junior Football League: GREG HUNTER, a defensive back from the Edmonton Huskies and DARYL CHECKNITA, a defensive tackle from the Edmonton Wildcats, who attended the Edmonton Eskimo's training camp; DON TALLAS, a former Wildcat, who will compete with Lampert and McCaffery for the starting quarterback position; guard PAT STARR, an ex-Huskie; and JIM O'NEILL, a linebacker from the Wildcats; offensive end BILL MANCHUK, formerly of Idaho State.

Two Edmonton boys—STAN SOLIKOSKI, a linebacker and fullback from St. Joseph's High School, and BILL BALES, a guard from Victoria Composite High School—GERRY MCANDREW, a linebacker and centre from Red Deer, and ANDY MCLEOD, a linebacker from Regina, complete the lineup.

The Golden Bears will play the University of Waterloo in Clarke Stadium on September 15; the University of Saskatchewan in Varsity Stadium on September 20; the University of Calgary on October 4 at Varsity Stadium (Homecoming); the University of Saskatchewan in Varsity Stadium on October 11; and the University of Manitoba at Varsity Stadium on November 1.

GRADUATE LEVEL COURSES OFFERED TO ENGINEERS

The Department of Chemical and Petroleum Engineering is offering graduate courses for practising engineers in the chemical and petroleum industries in the Edmonton area. The courses offered have been selected from the lists of full-time student schedules to appeal to the special interests of practicing engineers. Classes are scheduled for the late afternoon from 4 p.m. to 5:20 p.m. on Tuesdays and Thursdays in both fall and spring terms.

Engineers interested in enrolling in the new program can do so under the classification of "special student," registering in one or more courses but not seeking credit towards a degree or a diploma. Special students can register either with the Faculty of Engineering or the Faculty of Graduate Studies. Successful students may transfer credits earned to formal degree programs if they wish.

Instruction begins September 16 for the fall term and January 8 for the spring term. Three courses will be offered each term. Fees for each one-term course are \$85 plus a \$10 registration fee. All classes will be held in the new Phase I of the Engineering Centre.

Staff appointments

The following pages include lists of new appointments to the academic staff and members of the academic staff on leave during the 1969-70 academic year.

ACADEMIC APPOINTMENTS

ADMINISTRATIVE DATA PROCESSING

E. G. MADORE, Administrative Officer II, as from July 1

ANIMAL SCIENCE

A. D. HOWES, Assistant Professor, as from July 1

A. C. H. DUNLOP, Lecturer, as from July 1
N. O. FIETEL, Assistant Professor, as from July 1

R. SILVESTER, Assistant Professor, as from August 1

BOTANY

D. D. CASS, Assistant Professor, as from September 1

P. R. GORHAM, Professor, as from September 1
J. M. MAYO, Assistant Professor, as from September 1

BOOKSTORE

J. C. MALONE, Administrative Officer III, as from August 1

CHEMISTRY

R. E. MC CLUNG, Assistant Professor, as from July 1

D. L. RABENSTEIN, Assistant Professor, as from July 1

COMPUTING SCIENCE

W. A. DAVIS, Associate Professor, as from September 9

DENTISTRY

C. HAWRISH, Associate Professor, as from July 1

T. R. VOLB, Administrative Officer II, as from July 1

DRAMA

D. BORLAND, Professional Officer I, as from July 1

EDUCATIONAL FOUNDATIONS

M. K. BACCHUS, Associate Professor, as from July 1

R. S. PANNU, Assistant Professor, as from July 1

ELECTRICAL ENGINEERING

C. E. COPJACK, Assistant Professor, as from September 1

ELEMENTARY EDUCATION

J. P. MCINTYRE, Professional Officer I, as from July 1

ENGLISH

C. GORDON CRAIG, Assistant Professor, as from July 1

EXTENSION

A. D. O'BRIEN, Assistant Professor, as from September 1

GEOLOGY

J. STEINER, Lecturer, as from July 1

GRADUATE STUDIES

G. A. HOLMES, Administrative Officer IV, as from September 1

HOUSEHOLD ECONOMICS

E. A. DONALD, Associate Professor, as from August 1

M. E. STILES, Associate Professor, as from July 1

INDUSTRIAL AND VOCATIONAL EDUCATION

E. J. SIMMS, Assistant Professor, as from July 1

INSTITUTIONAL RESEARCH AND SYSTEMS

D. L. WENER, Administrative Officer I, as from July 1

LIBRARY

A. CHAN, Librarian Grade I, as from September 1

MATHEMATICS

H. H. BRUNGS, Assistant Professor, as from July 1

G. A. CHAMBERS, Assistant Professor, as from July 1

J. L. FIELDS, Associate Professor, as from July 1

F. USTINA, Assistant Professor, as from July 1

MECHANICAL ENGINEERING

A. CRAGGS, Assistant Professor, as from May 1

M. R. FAULKNER, Assistant Professor, as from August 1

MUSIC

M. BOWIE, Assistant Professor, as from July 1

H. F. L. BRAUSS, Associate Professor, as from July 1

B. L. HARRIS, Lecturer, as from July 1

D. A. STOCKER, Assistant Professor, as from July 1

NURSING

J. S. FORD, Lecturer, as from July 1

J. FUNKE, Lecturer, as from July 1

D. PURUSHOTHAM, Assistant Professor, as from July 1

F. L. MURPHY, Lecturer, as from July 1

K. R. STEVENS, Lecturer, as from August 1

OCCUPATIONAL THERAPY

D. BURT, Clinical Supervisor, as from June 1

PHARMACY

M. A. BELL, Assistant Professor, as from August 15

PHILOSOPHY

A. B. CODY, Professor, as from July 1

PHYSICAL EDUCATION

A. W. TAYLOR, Assistant Professor, as from July 1

PHYSICS

D. P. HUBE, Assistant Professor, as from August 1

PSYCHIATRY

J. W. URSCHEL, Assistant Professor, as from September 1

PURCHASING

R. A. BENNETT, Administrative Officer II, as from May 1

RADIATION RESEARCH CENTRE

E. B. CAIRNS, Professional Officer II, as from May 1

(Continued on page six)



That was the Hot Caf that was

Anyone, student or staff, who was at the University between 1942 and 1967 could tell you about Hot Caf. Hot Caf was that homely little grey building that stood on the edge of the quad, tucked in among the South Lab, the Chemistry Building, the Engineering Building, and the Cameron Library. For many years it was in a real sense the centre of the campus. It was a common ground for students and faculty; both met

there and ate there, and if the gulf between them was somewhat less than it is now, Hot Caf could claim at least a little of the credit.

Early in World War II, the Commonwealth Air Training Scheme set up shop at the University. Officer cadets, at the intermediate stage of their training and from all over the Commonwealth and from German-occupied countries, crowded into the three

The old building was uprooted this summer, and construction hoardings put up, blocking for a time a much-used artery east of the quad. Temporary footpaths have been left for pedestrians, but these may be closed as construction progresses.



residence buildings and took over the only food services on campus, the cafeteria in Athabasca Hall. New facilities had to be provided for the regular University students.

I. F. MORRISON, at that time Superintendent of Buildings as well as Professor of Applied Mechanics, designed the new cafeteria, except for the great supporting beams in the ceiling. The beams, called scissor trestles, were designed by GEORGE FORD, now Chairman of Mechanical Engineering but then a Sessional Demonstrator in Civil Engineering (in effect, a graduate student, one of the first three in that department). The fir trestles were intended more for decoration than for actual support of the high ceiling, and they lent considerable character to the building. It was completed in 1942, officially called the University Central Cafeteria, and very soon more lovingly dubbed Hot Caf.

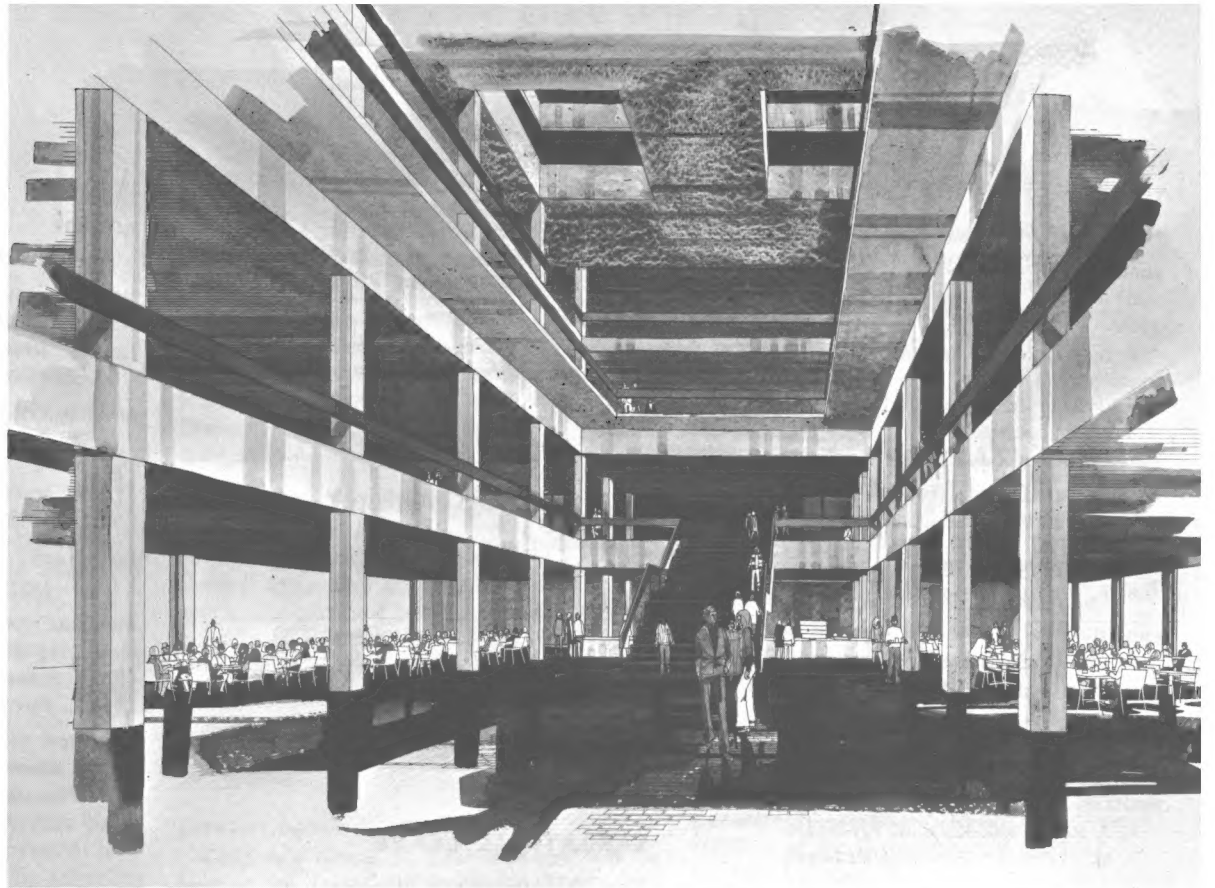
For 25 years Hot Caf did service, dishing up porridge, hamburgers, hot rolls, and full meals (including a preparation advertised as "Indiv Chicken Pie") to the entire campus. As the University grew, the little cafeteria became strained and over-crowded. In 1962 a new food services building, Lister Hall, was opened; this took off some of the strain, but Hot Caf was packed. In 1964 the academic staff opened a Faculty Club in which to take their meals. Nonetheless, an amazing number of faithful souls continued to patronize Hot Caf. Upon the completion of the new Students' Union Building, with its large snack bar and massive food services area on the second floor, Hot Caf finally was closed. In the fall of 1967 the Boreal Institute and the Technical Services Department took over the building, where they remained for 18 months.

Old Hot Caf was torn down this summer. Where it was there are green hoardings now, shielding the beginnings of the new Central Academic Building. When Hot Caf was built it cost only \$6 per square foot; the structure replacing it will cost \$16.70 per square foot; both figures are regarded as good value in their time and context. The new building, besides housing overflow from various departments, is the first link in an integrated system of pedestrian passages and teaching and service areas suggested by Messrs. DIAMOND and MYERS, the University's planning consultants. It will connect the Chemistry Building, the Cameron Library, and the Engineering Building, with an indoor channel for pedestrian traffic during the Alberta winter.

Somehow, it figures that the ground floor will be a cafeteria.

The core of the Central Academic Building (right) will be a four storey galleried space, with a cafeteria at the bottom level.

The interior of Hot Caf (below) changed little over the years. The scissor trestles were designed by the present Chairman of Mechanical Engineering, George Ford.



(Continued from page three)

SOCIOLOGY

G. S. PAUL, Lecturer, as from January 1, 1969
R. G. TOMPKINS, Administrative Officer I, as from May 1

ASSISTED LEAVE

AGRICULTURAL ENGINEERING

H. P. HARRISON, Associate Professor

ELEMENTARY EDUCATION

R. E. STEPHENS, Associate Professor

ENGLISH

D. BESSAI, Assistant Professor
F. D. CLANDFIELD, Assistant Professor

EXTENSION

A. M. ELLIOTT, Assistant Professor

HOUSEHOLD ECONOMICS

Z. J. HAWRYSH, Assistant Professor
V. M. LEFEBVRE, Assistant Professor

INDUSTRIAL AND VOCATIONAL EDUCATION

A. K. CLARK, Assistant Professor
M. W. PETRUK, Assistant Professor

PHILOSOPHY

R. A. SHINER, Assistant Professor

ROMANCE LANGUAGES

A. J. HOLDEN, Assistant Professor
P. L. KNIGHT, Professor

SECONDARY EDUCATION

R. N. MCGREGOR, Assistant Professor

SLAVONIC LANGUAGES

T. R. CARLTON, Assistant Professor
K. T. HOLDEN, Assistant Professor

LEAVE WITHOUT PAY

ANTHROPOLOGY

S. PIDDOCKE, Assistant Professor

ART

J. A. SYBESMA, Assistant Professor

BUSINESS ADMINISTRATION

M. BARTELL, Assistant Professor
R. A. DENHAM, Assistant Professor
H. A. KENNEDY, Assistant Professor
D. N. THOMPSON, Associate Professor

CLASSICS

R. M. L. NIELSEN, Assistant Professor

ECONOMICS

M. S. NOORZOY, Assistant Professor

EDUCATIONAL PSYCHOLOGY

R. BARTELL, Assistant Professor
A. R. VANDERWELL, Assistant Professor

ELEMENTARY EDUCATION

D. SAWADA, Assistant Professor

ENGLISH

J. MCMASTER, Assistant Professor
R. D. WEAVER, Assistant Professor

EXTENSION

G. A. EYFORD, Associate Professor
H. W. ROBERTS, Associate Professor

HISTORY

M. RECKORD, Assistant Professor

MATHEMATICS

T. V. NARAYANA, Professor

OPHTHALMOLOGY

H. K. SHUTT

PHILOSOPHY

D. CODER, Assistant Professor

PHYSICAL EDUCATION

D. DARWICK, Assistant Professor

POLITICAL SCIENCE

C. BAY, Professor

SABBATICAL LEAVE

AGRICULTURAL ENGINEERING

T. A. PRESTON, Associate Professor

ANTHROPOLOGY

A. L. BRYAN, Associate Professor

BIOCHEMISTRY

C. M. KAY, Professor

BUSINESS ADMINISTRATION

D. GOODALE, Associate Professor

CHEMISTRY

S. FRAGA, Associate Professor
P. KEBARLE, Professor

CIVIL ENGINEERING

J. G. MCGREGOR, Professor

COMPUTING SCIENCE

K. V. WILSON, Associate Professor

DENTISTRY

G. H. SPERBER, Associate Professor

DRAMA

F. F. BUECHERT, Associate Professor

EDUCATIONAL ADMINISTRATION

F. ENNS, Professor

EDUCATIONAL FOUNDATIONS

K. H. THOMSON, Professor

EDUCATIONAL PSYCHOLOGY

R. S. MACARTHUR, Professor

ENGLISH

F. BESSAI, Associate Professor
J. F. LAUBER, Associate Professor
R. D. MCMASTER, Professor
A. H. QURESHI, Associate Professor

GEOGRAPHY

R. G. IRONSIDE, Assistant Professor
A. H. LAYCOCK, Professor

GEOLOGY

D. E. JACKSON, Associate Professor

HISTORY

W. B. D. HEENEY, Associate Professor
L. H. THOMAS, Professor
M. RECKORD, Assistant Professor

MATHEMATICS

J. R. MCGREGOR, Professor and Chairman
A. MEIR, Associate Professor
J. W. MACKI, Assistant Professor
R. J. TAIT, Associate Professor

PHARMACY

A. J. ANDERSON, Professor

PHYSICAL EDUCATION

C. J. DRAKE, Associate Professor
R. B. J. MACNAB, Associate Professor
M. L. VAN VLIET, Dean

PHYSICS

E. R. KANASEWICH, Associate Professor
D. RANKIN, Associate Professor
M. RAZAVY, Associate Professor
H. SCHIFF, Professor

PLANT SCIENCE

W. P. SKOROPAD, Professor
W. H. VANDEN BORN, Associate Professor

POLITICAL SCIENCE

R. E. BAIRD, Associate Professor
C. BAY, Professor and Chairman

PSYCHOLOGY

T. M. NELSON, Professor
P. SWARTZ, Professor

ROMANCE LANGUAGES

M. FAUCHER, Professor

SECONDARY EDUCATION

E. W. BUXTON, Professor
C. G. HAMPSON, Professor

SOIL SCIENCE

J. A. TOOGOOD, Professor

SOCIOLOGY

B. R. ABU-LABAN, Associate Professor
C. W. HOBART, Professor
C. A. S. HYNAM, Associate Professor

ZOOLOGY

J. K. LAUBER, Assistant Professor
D. M. ROSS, Dean of Science

ERRATA

The following omission and error appeared in FOLIO, August 28:

AGRICULTURAL ECONOMICS

A. A. WARRACK was promoted to Associate Professor, as from July 1, 1969

CHEMICAL AND PETROLEUM ENGINEERING

A. E. MATHERS was incorrectly listed as being in the Department of Electrical Engineering

NOTICES

UNIVERSITY MAP COLLECTION

Some years ago it was agreed that the Department of Geography would maintain and operate the Cameron Library's map collection, and that it would integrate this collection with its own in the new facility to be called the University Map Collection. As a first step, in May, 1967, the Department appointed H. L. P. STIBBE as University Map Curator. In the following September, the maps which were being stored in the Cameron Library were moved to the Department of Geography map room, 3-32, Henry Marshall Tory Building, local 4760, and the task of cataloguing was begun. Borrowing procedures are essentially the same as those used by the Cameron Library.

The main body of the Collection is made up of approximately 45,000 flat maps, mostly topographic maps on various scales, with some thematic maps. The Curator is in the process of building up a reference section in which will be housed a shelf file consisting of folded highway maps, city plans, travel guides, brochures and pamphlets with general tourist information, and pamphlets and reports describing certain of the thematic maps. In addition, the reference section contains gazetteers, name lists, glossaries, foreign language dictionaries, and an atlas collection that is already substantial. The future growth of the collection will depend largely on the demand for its services, particularly from users outside the Department of Geography.

In conjunction with the Map Collection, the Department of Geography also maintains an air photo collection. This substantial collection of vertical aerial photography, covering almost the entire province of Alberta at various scales and for various years, is a useful supplement to the Map Collection. In addition to the coverage for Alberta, the air photo collection contains coverage for selected areas in all other provinces in Canada and in some foreign countries. The collection is available for reference purposes.

The two collections are now operative and available to anyone who is eligible to use the other library facilities on the campus.

ATHLETICS SEASON TICKETS

Season tickets admitting the holder to all intercollegiate games and meets on the campus during the 1969-70 season are available to staff members for \$10. The single ticket will be good for five football games, fourteen basketball games, ten hockey games, two swim meets, two wrestling meets, one judo meet, one track and field meet, and one gymnastics meet.

A parking permit for free reserved parking will be issued to each household holding a season ticket.

The first game—a football game with Waterloo University—will be held on September 15. Information may be obtained from the office of the Assistant Athletic Director, 157 Physical Education Building, local 3616.

REMEMBRANCE DAY HOLIDAY

The academic schedule approved by the Executive Committee of the General Faculty Council in January contained an error which was corrected at a recent meeting. The information contained in the University calendars is also incorrect. The statutory Remembrance Day holiday will be observed on Tuesday, November 11, and not on Monday, November 10. Classes will meet as usual on Monday.

CREATIVE DANCE CLASSES

Children's classes in creative dance will be held in the Dance Studio of the Physical Education Building from Saturday, September 20 to Saturday, December 6, from 9:30 a.m. to 12 noon. The classes are open to University staff children from five to thirteen years.

For further information, contact JOYCE BOORMAN, Department of Educational Services, local 3652.

EXCHANGE AGREEMENT

The exchange agreement between the National Research Council of Canada and the Soviet Academy of Sciences provides for an annual exchange of:

(1) Three eminent scientists from each side for a period in each case up to one month to give lectures, conduct seminars, and to become familiar with research and scientific institutions engaged in research in various problems of science.

(2) Seven research workers from each side for periods up to nine months for the purpose of conducting research or of acquainting the visiting scientist with current research in his field in the receiving country.

The National Research Council of Canada is now prepared to accept applications from Canadian scientists for participation in exchanges to take place during the period September 1, 1970, to September 1, 1971.

Applications will be accepted in all fields of science supported by the National Research Council. Applicants must be Canadian citizens and preference will be given to those having the equivalent of five years of research experience beyond the

Ph.D. degree. All expenses for visits are provided under the terms of the agreement. It is not essential, for the shorter visits, that applicants be proficient in the Russian language, but such knowledge will be an advantage.

Applications will be accepted until November 1, 1969. Application forms are available from the Student Awards Office, 122 Administration Building, or can be obtained from the National Research Council of Canada by writing to

Dr. J. D. Babbitt,
Secretary for International Relations,
National Research Council of Canada,
100 Sussex Drive,
Ottawa, Ontario.

CIDA STUDENTS

An agreement was recently concluded between The University of Alberta and the Canadian International Development Agency (CIDA) of the Government of Canada, whereby the University will provide a number of additional services to students studying under the auspices of the CIDA.

The University has agreed to accept responsibility for arranging for these students to be met on arrival and given assistance in obtaining suitable accommodation. Officers of the University will assist them to resolve academic or personal problems which may arise during their courses.

From funds provided by the CIDA, the University will pay each student allowances for living expenses, clothing, books, and equipment, in accordance with official scales. Effective October 1, and the first of each following month, living allowance cheques should be picked up at the CIDA Co-ordinator's office, 202 University Hall. If a student must travel in connection with his program of studies, he must contact the Co-ordinator's office before he leaves, in order to be reimbursed for approved expenses.

In the past, all requests for reimbursements and all matters arising from a student's program of studies or from changes in his personal circumstances were referred by the student or his academic supervisor to the CIDA in Ottawa. In the future, it will be possible for most of these matters to be settled locally.

R. C. W. HOOPER, Dean of Men and Foreign Student Adviser, has been appointed by the University to act as "Co-ordinator" between the University and the CIDA. Members of the University are asked to remind students attending under the auspices of the CIDA that they should feel free to consult Major Hooper for information or advice.

on any matter relating to their studies; living conditions; social, cultural, and recreational facilities; personal problems; or the general objectives of the CIDA program. Where necessary, after a preliminary interview they will be referred to other individuals within the University who can give them specialized assistance.

Members of the academic staff who are supervising CIDA students are requested to notify Major Hooper if any special problems arise which may affect a student's academic progress.

C. D. HOWE MEMORIAL FELLOWSHIPS

C. D. Howe Memorial Fellowships of \$5,000 with appropriate travelling and living expenses are offered through the Association of Universities and Colleges of Canada (AUCC). Not less than three awards are made. In addition, one or more awards may be given to candidates in History or the social sciences whose field of research is related to the public career of the Right Honourable C. D. Howe for the period 1935-57 in Canadian political and economic history. Age restrictions, degree requirements, and the value of the Fellowship will not necessarily apply to such candidates.

The Fellowships are awarded for one year and may be held by men and women who are Canadian citizens or normally resident in Canada. Candidates must hold a doctoral degree or the equivalent level of achievement prior to submitting application. Preference will be given to candidates not more than 35 years of age; applications from candidates more than 38 years of age by December 31 in the year of the competition will not be considered. Winners will be expected to file with the AUCC two copies of any paper or publication, or, in any case, a report of work accomplished while holding the C. D. Howe Fellowship. A Fellow may not hold concurrently any other major award.

There are no restrictions on field of study

or location, except that it must be suitable to the program of work undertaken.

The closing date for applications is November 8. Further information may be obtained from the Director of Awards, AUCC, 151 Slater Street, Ottawa 4, Ontario.

UNIVERSITY SINGERS

The University Singers will hold the first meeting of the 1969-70 season at 8 p.m. on Tuesday, September 16 in Room 345 of the Agriculture Building. Informal auditions for new members will be held September 16, 23, and 30, and all interested persons are invited to attend. The group is directed by SANDRA MUNN, Assistant Professor of Music.

COURSES ON THE DEVELOPING CHILD

The Department of Extension will offer four courses on the child, his problems, and his relationships to his parents and school.

Child Growth and Development, taught by PREM GUPTA, a graduate student in Educational Psychology, will begin October 1. Classes will be held weekly from 8 to 10 p.m. The course fee is \$30.

Home and School Discipline Problems, taught by E. LARRY EBERLEIN, Assistant Professor of Educational Psychology, will begin October 2. Weekly classes will run from 7 to 9 p.m. The fee is \$30.

Parent-Teen Relations will be conducted by KODYN VANDONSELAAR, Counsellor with the Student Counselling Services. The course begins September 30, with weekly sessions from 8 to 10 p.m. The fee is \$30.

A Seminar for Discussion Leaders in Family Life Education will be conducted by the Reverend STAN ERRETT of Grace United Church and EUGENE DUBORD, Consultant with the Alberta Department of Social Development. Class hours will be from 8 p.m. Friday, October 24, to 4:30 p.m. Sunday, October 26, and 9 a.m. to 4:00 p.m. November 1 and 3. The fee is \$55.

Further information may be obtained from 439-2021, extension 49.

COMING EVENTS

EDUCATION CONFERENCE

Educators from Canada and the United States will be among the guest speakers at the Third Invitational Conference on Elementary Education at the Banff School of Fine Arts and Centre for Continuing Education, from October 29 to November 1. The conference will be sponsored by the Department of Elementary Education.

The keynote address, "Schools for the 70's," will be given by RALPH TYLER, of Science Research Associates in Chicago. Guest speaker at the conference banquet will be JUNE CALLWOOD, freelance journalist from Toronto.

The theme of the conference is "Individualized Curriculum and Instruction." Under the chairmanship of KENNETH A. NEUFELD, Assistant Professor of Elementary Education, the conference will include discussion periods on 14 subjects, and two panel discussions featuring guest speakers.

LINGUISTICS LECTURE

EMMON BACH, Professor of Linguistics at the University of Texas, will give a public lecture on "The Current Crisis in Syntactic Theory" on Monday, September 15, at 8:30 p.m. in TLB-2. Dr. Bach's visit is under the sponsorship of the Department of Linguistics.

PERSONAL NOTICES

Staff members may forward notices to reach the Editor by 9 a.m. the Friday prior to publication. They must be typed, and not exceed 35 words including heading. Advertisements received will be published at the Editor's discretion.

Typing—Students with typing to be done may call Mrs. Eggen, 434-0809.

FOR SALE—White 1967 Sunbeam Arrow. Carefully serviced. Excellent condition. 22,000 miles. 32 mpg. Under Chrysler warranty of 5 years or 50,000 miles. Four studded tires included. Must sell. \$1,475, or reasonable offer. Local 4221, or 439-4836.

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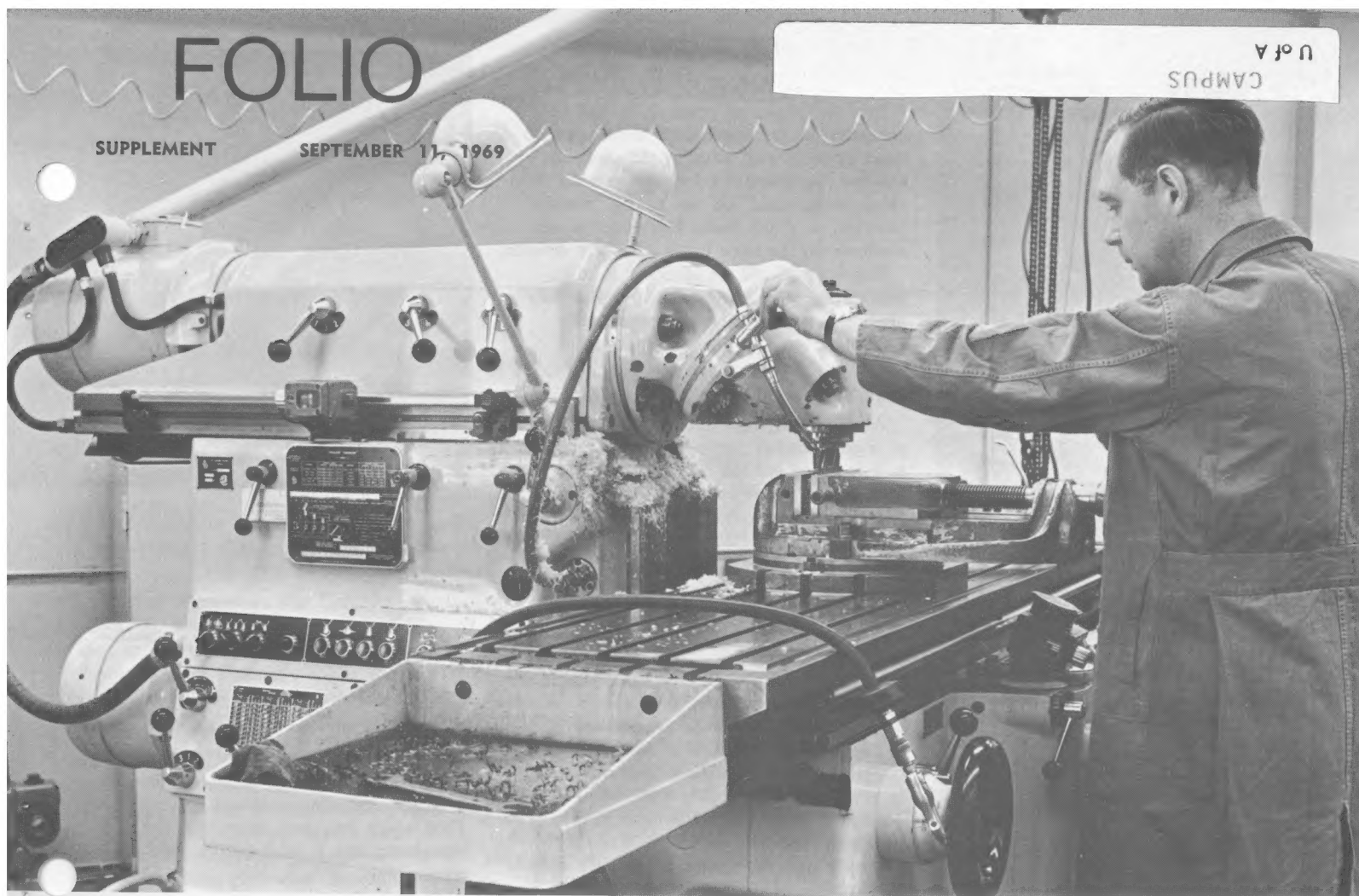


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Advisory Committee: Henry Kreisel (Associate Dean of Graduate Studies); D. D. Betts (Professor of Physics); Aylmer A. Ryan (Provost and Executive Assistant to the President); F. William Samis, Editor

EDITORIAL OFFICE: University Publications Office, 123 Administration Building, telephone 432-4991.

DISTRIBUTION and mailing list enquiries: Public Relations Office, Attention: Mrs. B. J. Lacroix, telephone 432-4201.



REPORT / TECHNICAL SERVICES

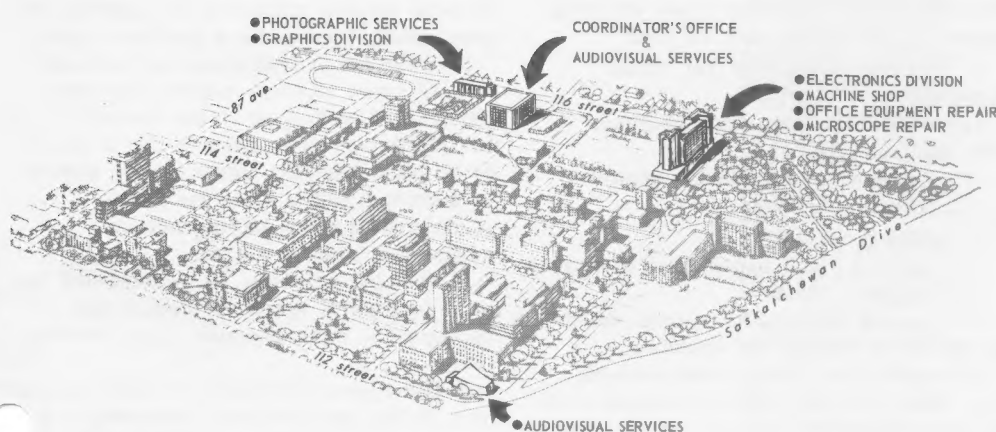
INTRODUCTION

The Department of Technical Services exists to provide a variety of services to all University departments. In order to make the departments aware of these services, we propose to make more frequent use of FOLIO. A later issue of FOLIO will include an insert listing in detail all of the services presently being provided by the department.

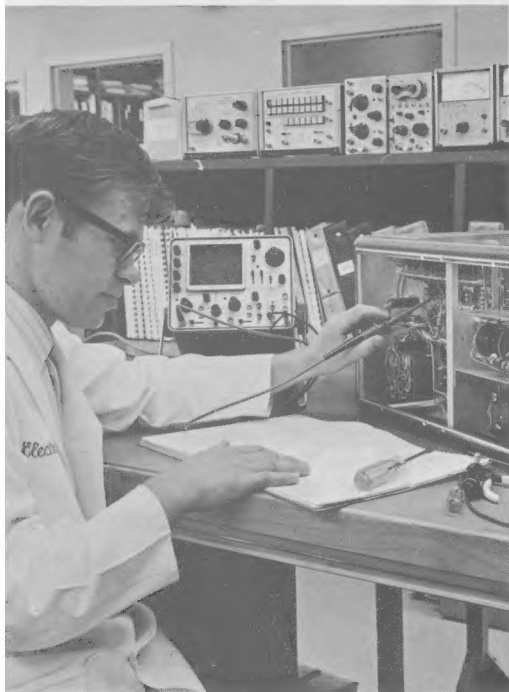
We would be pleased to have comments on the services now being provided and on those we perhaps should be providing. Do not hesitate to contact myself or any of the supervisors of the divisions if you have any comments, suggestions or complaints.

W. H. JOPLING

Co-ordinator, Technical Services



Map shows location of each of the divisions in Technical Services. Machinist (above) operates a milling machine in the Machine Shop. Information for this supplement was provided by the Technical Services staff. Photographs are by Photo Services; charts and diagrams were drawn by the Graphics Division.



Technician calibrating oscilloscope at Electronics Division



Macrophotography equipment at Photo Services (with ring-light for even illumination)

"LOAN TECHNICIANS" AND EQUIPMENT

In many phases of research, it may be necessary to use specialized technicians on a short or long term basis at the research location. Technical Services can provide these "loan technicians" on an hourly, weekly, monthly, or yearly basis. Equipment is also available on the same terms from any division.

Enquiries should be directed to the appropriate division supervisor, who can provide lists of available services and equipment.

PHOTOGRAPHIC PROBLEMS

At Photo Services photographic problems of a great variety are being solved daily: how to best bring out the texture in a piece of cake or a piece of polished stone; how to find and photograph to best advantage a sheep's egg in a petri dish; how to speed up the protoplasmic flow in a fungal hypha; how to illuminate to bring out the unstained bands of an immunological reaction in a gel; how to increase the contrast of faint computer graphs. These and many similar problems have been presented to Photo Services. The experience thus gained provides a background for future assignments.

The division provides a consulting service on photographic problems, and this service is available to University staff whether or not the actual photographic work is to be done by Photo Services.

Free consulting service is available from all divisions of Technical Services, and is rapidly becoming an important aspect of the Department's work.

AUDIO-VISUAL EQUIPMENT

The Department of Technical Services has a pool of audio visual equipment available for short term loans. They also have a knowledge of all equipment on campus: what Technical Services cannot provide, they can often arrange to make available. A partial list follows:

1. 35mm slide projectors—primarily Kodak Carousel models, but other types, including random access systems, are on hand
2. Accessory Equipment for 35mm projectors
 - (a) device for synchronizing projectors with tape recorders
 - (b) Kodak Carousel dissolve control
 - (c) polarizing analyzer
3. 16mm projectors
 - (a) standard (both manual and automatic)
 - (b) magnetic sound
 - (c) variable speed model (silent)—speeds as low as 13 frames per second
 - (d) photo data optical analyzer—this is a 16mm projector which will project (with no flicker) at 1, 2, 4, 6, 8, 12, 16, and 24 frames per second
4. Opaque projectors (epidiascopes)
5. Film strip projectors
6. Overhead projectors



Graphics Division's services include airbrushing—employed here to retouch a photograph which will later be published.

7. 3¼ by 4 inch slide projectors
8. 8mm single concept film projectors (Technicolor and Fairchild models)
9. 8mm standard and Super-8 projectors
10. Portable projection screens
11. Tape recorders—several types are available, including a battery-operated Uher 5000 which functions much like dictation equipment and is particularly good for transcribing
12. Cassette tape recorders
13. Portable rear projection screens
14. 35mm motion picture projector (available in the Students' Union Theatre)

PICTORIAL DRAWINGS—THE CHOICE IS YOURS

A great variety of pictorial drawings make their appearances in technical journals. A drawing of the same device may be very complex, or extremely simple.

The problem is to choose a type of pictorial drawing suitable to the purpose, and economically feasible for a particular report.

Several types of illustrations are available:

1. *Isometric drawing*—possibly the most widely used technique. It has certain advantages over other styles in that it may be scaled accurately, has only a limited amount of distortion, and is cheap and fast to produce, since many drawing aids are available to speed production.

2. *Dimetric projection* shows somewhat less distortion, but is slower to produce and consequently more expensive than isometric drawing.

3. Using *perspective technique*, figures appear very lifelike and undistorted. However, there are serious drawbacks to perspective drawing. It is not possible to scale dimensions accurately, and, because of the complexity of the drawing technique, it is a tedious and hence expensive approach.

Many other pictorial techniques are available, and each has certain advantages. Selection of the illustrative style best suited to individual needs can be a little confusing. If suggestions or assistance are required, the Graphics Division has examples of styles available and will provide estimates at no charge.

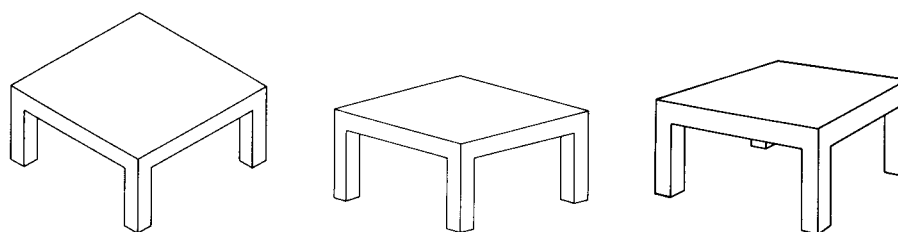
PUBLICATION AND SLIDE STANDARDS

Although the graphic standards of scientific journals vary slightly from one publisher to another, it is possible to establish basic standards suitable for most cases. Usually the editors establish minimum line and lettering sizes based on a 9 by 12 inch, or similar size, drawing. For aesthetic reasons or for clarity one may wish to use larger lettering or heavier lines than these minimums. This is usually permitted.

In order to provide some consistency from one drawing to another, the Graphics Division has determined a set of standards which will satisfy most publishers. If work is intended for publication alone, this standard will suffice. If, however, the drawing must be presented as a slide, TV graphic, or overhead projectual, different standards apply. Lettering sizes and line weights will vary according to the size of the screen, distance of the screen from the furthest viewer, room lighting conditions, viewing angles, etc.

Because it is not always possible to determine all these projection factors in advance, another set of arbitrary standards has been selected. This set of standards for slides will be adequate for most projection situations and has, so far, been well received. If one is aware of all factors in advance, it may sometimes be possible to decrease or to increase sizes to achieve optimum legibility.

Individual cases should be discussed carefully with Graphics Division before any actual drawing takes place. Simplification



Simple examples of three drawing techniques—*isometric, dimetric and perspective*

of published material may eliminate the necessity of redrawing for slide purposes, and thus result in a lower net cost.

TELEVISION "CRAWL"

The use of television at the University has increased considerably in the past year. Instructional television frequently requires the showing of extensive graphic material. In order to facilitate the presentation of long lists of statements or formulae, the Graphics Division has designed and fabricated a television "crawl." By use of this device, individual statements (or groups of statements) can be made to travel vertically from bottom to top of the screen. The speed of the images is controlled remotely by the lecturer so as to coincide with his delivery. The speaker may also stop the motion for extra emphasis of individual points.

Although it is primarily designed for television, the crawl has found another use in the titling of motion pictures. The television crawl is available on request from the Graphics Division, who will also prepare the graphics to be used on the machine.

PRINTED CIRCUITS

The Electronics Division recently obtained a spray etcher which allows them to produce printed circuits of high quality at a lower cost than previously possible. The cost is 11 cents per square inch on single-sided epoxy board, if a negative is supplied.

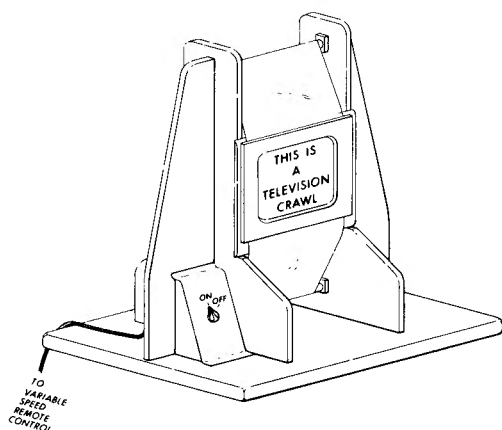
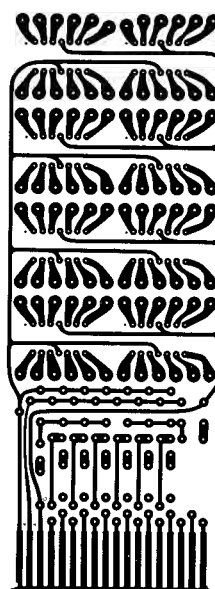


Illustration of a television crawl, which is used when titles must move up or down the T.V. screen. At right, the functional artistry of a printed circuit, actual size.



Minimum charge is \$1.00. For double-sided boards, the charge is 11 cents per square inch for each side. Gold plating of finished circuit boards is also available at extra cost.

Layout of basic drawings for printed circuits can also be provided. Due to the complexity of some circuits, cost of this service can vary considerably and estimates are usually required.

Enquiries should be directed to the Electronics Division.

14-CHANNEL MAGNETIC TAPE RECORDING SYSTEM

A recent addition to Technical Services' rental equipment is a 14-channel magnetic tape recording system. The system can be used for recording psychological, physiological, audio, and a number of other electrical phenomena occurring in the low and medium frequency spectrum.

The 14-channel magnetic tape recording system can be utilized in one of two modes of operation: FM record and reproduce (playback), and direct record and playback. In the FM mode, frequencies from 0 to 20 K Hertz can be recorded and reproduced, while in the direct mode frequencies, up to 300 K Hertz can be recorded and reproduced. Recording or playback (reproduce) can be performed at 6 different speeds, from 15/16 inches per second to 60 inches per second.

The system uses a one inch wide tape, with a total reel capacity of 9,000 feet. A five-digit footage counter allows the user to locate recorded information.

Further information about the use of this instrument for research purposes may be obtained from PAUL FEKETE of the Electronics Division, local 4901.

SOUND SYSTEMS IN THE HENRY MARSHALL TORY BUILDING

The sound systems in the Henry Marshall Tory Building lecture theatres, which were installed by the Electronics Division, are designed to provide complete control from the lecturer's position in the theatre. The following facilities are provided:

1. In the small theatres (TL-12, TLB-1, TLB-2), there are two microphone inputs with individual volume controls; one phono input with individual volume control; and an on/off switch. These are all mounted

on the lecturer's bench for easy access. In the projection booth, microphone, phono, tape, and projector inputs are provided.

2. In the main theatre (TL-11), the system is larger and provides five microphone inputs with individual volume controls, one phono input with volume control, and an on/off switch, all at the lecturer's bench. In the projection booth, facilities are provided for stereo sound as well as the regular microphone, phone, and tape and projection inputs.

The equipment used in these systems employs the Altec Quick Connect Solid State Modules, which have proved to be very reliable.

TAPE PROGRAMMER FOR CAROUSEL RANDOM ACCESS PROJECTOR

When the need to project slides in a random order with a completely hands-off operation was brought to their attention, the Electronics Shop constructed a programmer using an eight channel tape reader, which, after a tape is punched, can select at random up to 36 different slides. Slide "on time" as well as slide "off time" can be varied individually from approximately 300 milliseconds to 30 seconds.

The circuit consists basically of a tape reader, a decoder driver, and a time sequence generator. The first six channels on the tape code the number of the slide to be projected. Nand gates decode the combination of holes and enable a relay driver to select a slide number in the projector.

To start the programmer, the tape is manually stepped until channel eight, which is punched on tape, is closed. A closed loop is formed between three timers and a repeat cycle will occur until channel eight opens. The first timer determines slide "on time," while the second determines slide "off time." The third timer supplies the pulse required to step the tape reader and to start the first timer.

The number of selections possible can be increased to over 70 presentations. Tapes are punched at the Electronics Shop on a teletype tape puncher. With minor modifications, the programmer can be used in various applications where random selections are to be made.

MICROSCOPE REPAIR

The newest service offered by Technical Services is that of Microscope Repair. R. J. (BOB) CUNNINGHAM (formerly of Northland Optical) joined the University in January, and is available to all University departments, for the maintenance and repair of microscopes. Mr. Cunningham is located in Room 130A, New Engineering Building, local 4901.

OFFICE EQUIPMENT REPAIR

Many types of office equipment are now being maintained by the Office Equipment Repair Division of Technical Services.

All makes of dictation equipment, adding machines and calculators (excluding electronic), and electric typewriters (other than IBM) are repaired and serviced through this division. Service on some office copiers and miscellaneous office accessories is also provided.

It is proposed to service mechanical typewriters commencing in the fall of 1969.

Several lines of business machines are available for rent. If used for less than three days, there are no rental charges.

When considering the purchase of office equipment, do not hesitate to ask the Office Equipment Repair Division for advice or suggestions.

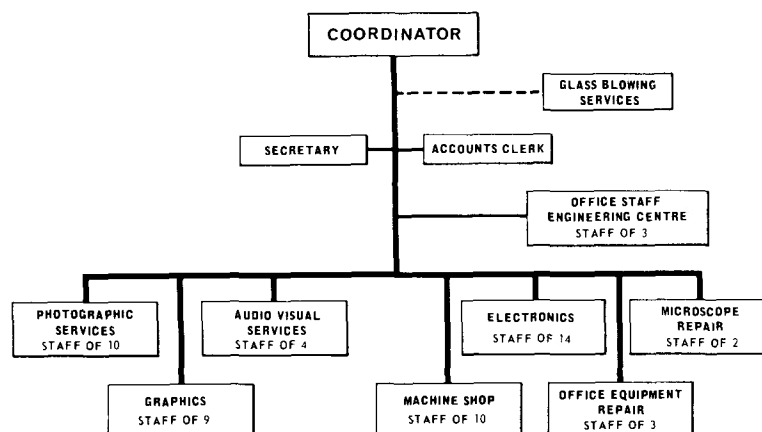
FACULTY OF MEDICINE MACHINE SHOP

A machine shop operated by Technical Services has been established in the new Clinical Sciences Building to serve the Faculty of Medicine. It is located in Room 742, and is supervised by ISAO YAMAMOTO. Equipment in the new shop was selected to complement existing equipment in the main Technical Services shop.

TECHNICAL SERVICES TELEPHONE DIRECTORY

Co-ordinator	3302
Graphics	3461
Electronics	4901
Glassblowing	3513
Machine Shop	4901
Microscope Repair	4901
Office Equipment Repair	4901
Photo Services	4186 or 3812
Projection Services and Equipment	3923

DEPARTMENT OF TECHNICAL SERVICES



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